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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,295	05/17/2005	Zsolt Saffer	AT 020070	5859
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EXAMINER GODBOLD, DOUGLAS				
ART UNIT 2626		PAPER NUMBER		
MAIL DATE 05/19/2009		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/535,295

Applicant(s)

SAFFER, ZSOLT

Examiner

DOUGLAS C. GODBOLD

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 14-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This office action is in response to correspondence filed March 18, 2009 in reference to application 10/535,295. Claims 14-28 are pending and have been examined.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on March 18, 2009 has been entered.

Response to Amendment

3. The amendment filed March 18, 2009 has been accepted and considered in this office action. Claims 1-13 have been cancelled and claims 14-28 added.

Response to Arguments

4. Applicant's arguments with respect to claims 14-28 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 14-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 18 recites the limitations of "at least one processor adapted to implement:". However the phrase "adapted to implement" leaves it unclear as to whether the following limitations are required by the claim language. Therefore claim 14 is rejected as being indefinite and claims 15-18 are rejected as well as they are dependent on claim 14.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 14, 15, 19, 20, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martino et al (US Patent 6,061,646) in view of Coffman et al. (US Patent 6,377,913) in view of Dobler (US PAP 2005/00386652).

10. Consider claim 14, Martino teaches a system for providing transcription of a conference between two or more individuals (abstract), the system comprising:

at least one processor adapted to implement:

a feature vector extractor for extracting at least one feature vector from the speech information (figure 3, utterance input module 151; column 8 line 62. feature extraction is inherent in order to have features for comparison for speech recognition);

a language recognizer for determining a language of the speech information based, at least in part, on the channel information, the at least one feature vector and the acoustic segmentation information (language recognition; column 9 lines 14-43. This is complete after any preprocessing described column 8 line 62- column 9 line 1. Therefore language recognition will be dependent on this pre-processing); and

a speech recognizer for providing text information corresponding to words recognized in the speech information based, at least in part, on the channel information, the at least one feature vector, the acoustic segmentation information and the language (speech is recognized using selected language recognizer; column 9 line 44-53. This is completed after any preprocessing described column 8 line 62- column 9 line 1. Therefore speech recognition will be dependent on this pre-processing).

Martino does not specifically teach:

a plurality of reception stages to receive speech information over a respective plurality of transmission channels;

at least one processor adapted to implement: a channel recognizer coupled to the plurality of reception stages to receive speech information, the channel recognizer

recognizing which Of the plurality of reception stages is receiving speech information during a given time interval to identify an in-use channel of the plurality of transmission channels and to provide channel information including at least one transmission parameter of the in-use channel;

a feature vector extractor for extracting at least one feature vector from the speech information based, at least in part, on the channel information;

In the same field of speech recognition, Coffman teaches:

a plurality of reception stages to receive speech information over a respective plurality of transmission channels (figure 1, client devices; column 3 lines 39-43);

a channel recognizer coupled to the plurality of reception stages to receive speech information, the channel recognizer recognizing which ff the plurality of reception stages is receiving speech information during a given time interval to identify an in-use channel of the plurality of transmission channels and to provide channel information including at least one transmission parameter of the in-use channel (figure 2, client input output 201. Inherently this must recognize which client device is in use in order to communicate with it. Column 4 lines 14-15 show that inputs may be different based on the type of client device);

a feature vector extractor for extracting at least one feature vector from the speech information based, at least in part, on the channel information (Column 4 lines 14-15 show that inputs may be different based on the type of client device. Therefore feature extraction must be based at least in part on channel information);

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the multiple client capabilities of Coffman in the system of Martino in order to allow users to use multiple input devices without greatly increasing the complexity of the system; Coffman column 1 line 25-31.

Martino and Coffman do not specifically teach a segmentation recognizer for performing acoustic segmentation of the speech information to provide acoustic segmentation information indicating at least one segment identified in the speech information based, at least in part, on the channel information and the at least one feature vector, the acoustic segmentation information including a label for the at least one segment of the speech information indicating whether the at least one segment is associated with speech, a pause in speech or non-speech.

In the same field of Speech recognition, Dobler teaches a segmentation recognizer for performing acoustic segmentation of the speech information to provide acoustic segmentation information indicating at least one segment identified in the speech information based, at least in part, on the channel information and the at least one feature vector, the acoustic segmentation information including a label for the at least one segment of the speech information indicating whether the at least one segment is associated with speech, a pause in speech or non-speech (paragraph 0022, VAD [voice activity detector] segments voice signal into voiced and unvoiced segments).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the VAD of Dobler in the system of Martino and Coffman in order

to restrict comparisons to segments that contain speech information, thereby saving processing time.

11. Consider claim 15, Coffman teaches the system of claim 14, wherein the plurality of reception stages include at least two of the following:

at least one sound card installed in at least one computer, the sound card connected to at least one microphone (desktop computer column 3 line 41; a sound card and microphone is required in order to input speech);

at least one connection adapted to receive at least one analog telephone line (telephone; column 3 line 41);

at least one connection adapted to receive at least one digital telephone line (figure 1, cell phone, which are usually digital);

at least one connection adapted to receive at least one data network channel (client devices are attached to device handling via some kind of network; figure 1).

Coffman does not specifically teach

at least one connection adapted to receive at least one Integrated Services Digital Network (ISDN) telephone line;

and at least one connection adapted to receive a voice-over-interact-protocol (VoIP) data stream.

However ISDN and VoIP are well known protocols for voice transmission and it would have been obvious to one of ordinary skill in the art to include ISDN and VoIP as client devices in the system of Coffman.

Therefore it would have been obvious to use the multiple input devices taught by Coffman and others that were well known at the time of the invention such as ISDN and VoIP in the system of Martino, Coffman and Dobler in order to allow users to use multiple input devices without greatly increasing the complexity of the system; Coffman column 1 line 25-31.

12. Claim 19 is directed towards a method (taught by abstract of Martino) requiring similar limitations as the system of claim 14 as in therefore rejected for similar reasons.

13. Claim 20 is directed towards a method (taught by abstract of Martino) requiring similar limitations as the system of claim 15 as in therefore rejected for similar reasons.

14. Claim 24 is directed towards a computer readable storage device encoded with a plurality of instructions for execution on at least one processor (taught by figure 1 and column 3 line 34 -- column 4 line 21 Martino) requiring similar limitations as the system of claim 14 as in therefore rejected for similar reasons.

15. Claim 25 is directed towards a computer readable storage device encoded with a plurality of instructions for execution on at least one processor (taught by figure 1 and column 3 line 34 -- column 4 line 21 Martino) requiring similar limitations as the system of claim 15 as in therefore rejected for similar reasons.

16. Claims 16, 21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martino, Coffman and Dobler as applied to claims 15, 20 and 25 above, and further in view of Sapeluk (US PAP 2004/0236573).

17. Consider claim 16 Martino, Coffman and Dobler teach the system of claim 15, but does not specifically teach wherein the channel information includes bandwidth information of the in-use channel.

In the same field of speech recognition, Sapeluk teaches the channel information includes bandwidth information of the in-use channel (paragraphs 0165-180 teach using channel bandwidth in order to determine noise measurements).

Therefore it would have been obvious to use channel bandwidth to adjust parameters for speech recognition as taught by Sapeluk in the system of Martino, Coffman and Dobler in order to improves speech recognition performance by tailoring recognition parameters to the channel conditions.

18. Claim 21 is directed towards a method (taught by abstract of Martino) requiring similar limitations as the system of claim 16 as in therefore rejected for similar reasons.

19. Claim 26 is directed towards a computer readable storage device encoded with a plurality of instructions for execution on at least one processor (taught by figure 1 and column 3 line 34 -- column 4 line 21 Martino) requiring similar limitations as the system of claim 16 as in therefore rejected for similar reasons.

20. Claims 17, 18, 22, 23, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Martino, Coffman, and Dobler as applied to claim 15 above, and further in view of Brookes et al. (US Patent 2004/0059575).

21. Consider claim 17, Martino, Coffman, and Dobler teach the system of claim 15, but does not specifically teach further comprising a topic recognizer for recognizing at least one key word in the speech information based, at least in part, on the language of the speech information, and wherein the speech recognizer provides the text information based, at least in part, on the at least one key word.

In the same field of speech recognition, Brookes teaches a topic recognizer for recognizing at least one key word in the speech information based, at least in part, on the language of the speech information, and wherein the speech recognizer provides the text information based, at least in part, on the at least one key word (context information determined, paragraph 0053 and 0054, then second pass focuses on category of context; paragraph 0059).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use the topic selection of Brookes in the system of Martino, Coffman, and Dobler in order to further narrow the speech recognition thereby further improving recognition accuracy.

22. Consider claim 18, Martino teaches the system of claim 17, further comprising a speaker group recognizer for recognizing a speaker group associated with the speech information based (different sexes and age groups have their own models; column 9 lines 20-25), at least in part, on the channel information and the language of the speech information, and wherein the speech recognizer provides the text information based, at least in part, on the speaker group (column 9 lines 20-25, different models are applied in recognition to different ages groups and sexes. This is completed after any preprocessing described column 8 line 62- column 9 line 1. Therefore speech recognition will be dependent on this pre-processing).

23. Claim 22 is directed towards a method (taught by abstract of Martino) requiring similar limitations as the system of claim 17 as in therefore rejected for similar reasons.

24. Claim 23 is directed towards a method (taught by abstract of Martino) requiring similar limitations as the system of claim 18 as in therefore rejected for similar reasons.

25. Claim 27 is directed towards a computer readable storage device encoded with a plurality of instructions for execution on at least one processor (taught by figure 1 and column 3 line 34 -- column 4 line 21 Martino) requiring similar limitations as the system of claim 17 as in therefore rejected for similar reasons.

26. Claim 28 is directed towards a computer readable storage device encoded with a plurality of instructions for execution on at least one processor (taught by figure 1 and column 3 line 34 -- column 4 line 21 Martino) requiring similar limitations as the system of claim 18 as in therefore rejected for similar reasons.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS C. GODBOLD whose telephone number is (571)270-1451. The examiner can normally be reached on Monday-Thursday 7:00am-4:30pm Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DCG

/Richmond Dorvil/

Supervisory Patent Examiner, Art Unit 2626